C2 SYSTEMS OVERVIEW

MSTP

FOR NETWORK ADMINISTRATORS

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PURPOSE

To provide an understanding of various C2 systems, what they will do for you and give an appreciation of the effort and skills required to implement and maintain them.

C2 SYSTEMS

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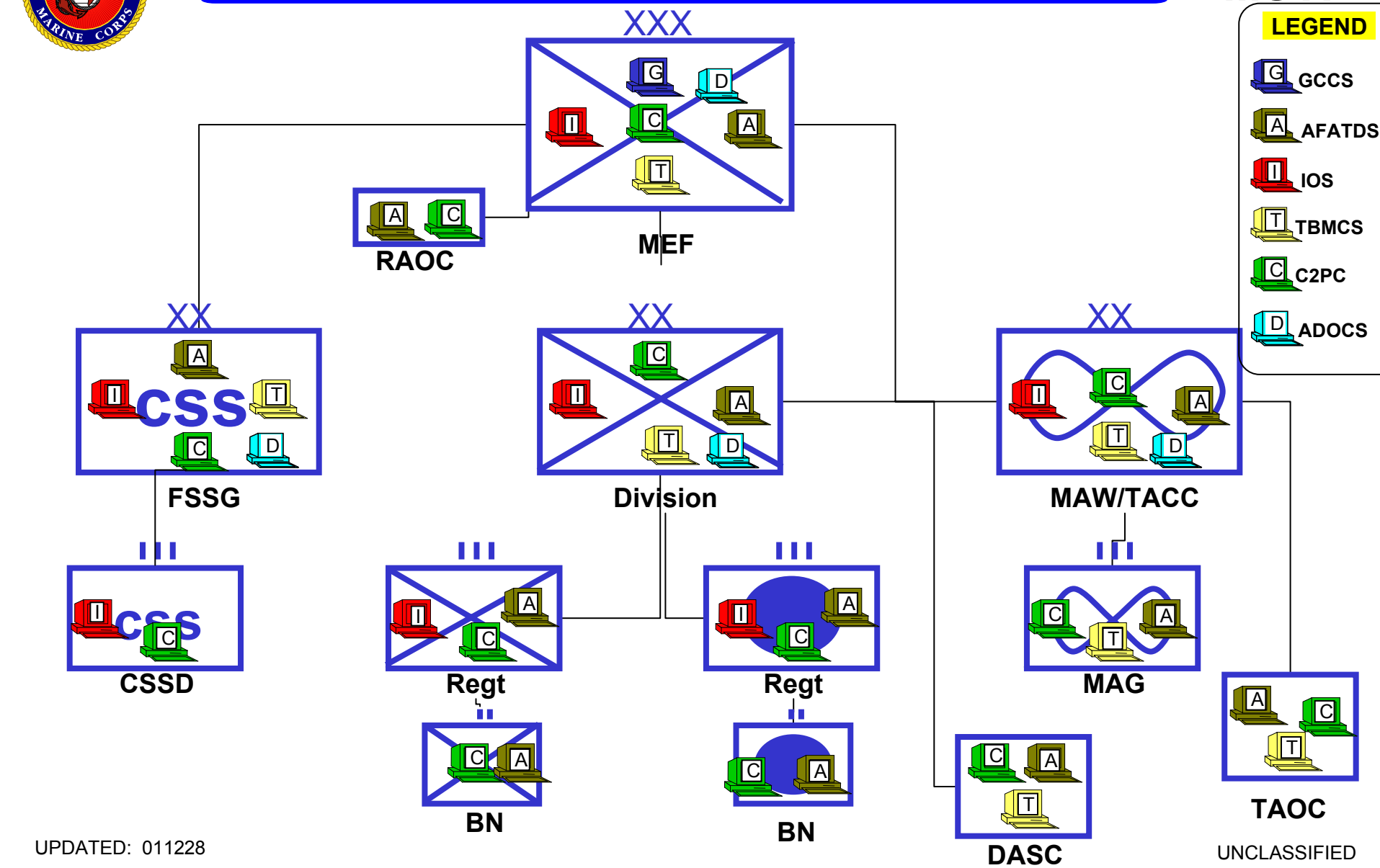
- Systems of Record
  - MARCORSYSCOM
- Current Generation
  - Work
  - Achieving Interoperability
- C2 Systems We'll Cover:
  - Intelligence Operations Server v1 & v2 (IOSv1/v2)
  - Command & Control Personal Computer (C2PC)
  - Advanced Field Artillery Tactical Data System (AFATDS)
  - Automated Deep Operations Coordination System (ADOCS)
  - Theater Battle Management Core Systems (TBMCS)

C2 SYSTEM ARCHITECTURE



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IOS v1 & v2

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IOS v1 & v2

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- V1 = *Operations* component of the MAGTF C4I software baseline
- V2 = *Intelligence* component of the MAGTF C4I software baseline

- Provides the ability to receive, fuse, select and display information both threat and friendly from many sources, and disseminate selected information throughout the battlespace

- Specs:
  - Sun Netra T1125
  - Two 36 GB Ultra-SCSI HD
  - Two 440 MHZ CPU(s) Ultra-Sparc-II
  - 1 GB RAM
  - Solaris 2.5.1

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CAPABILITIES

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- COP/CIP
  - TDBM
  - MIDB
- Mail Server
- Web Server
- Chat Server
- DNS
- Go-Global X-Server (For remote windowing)

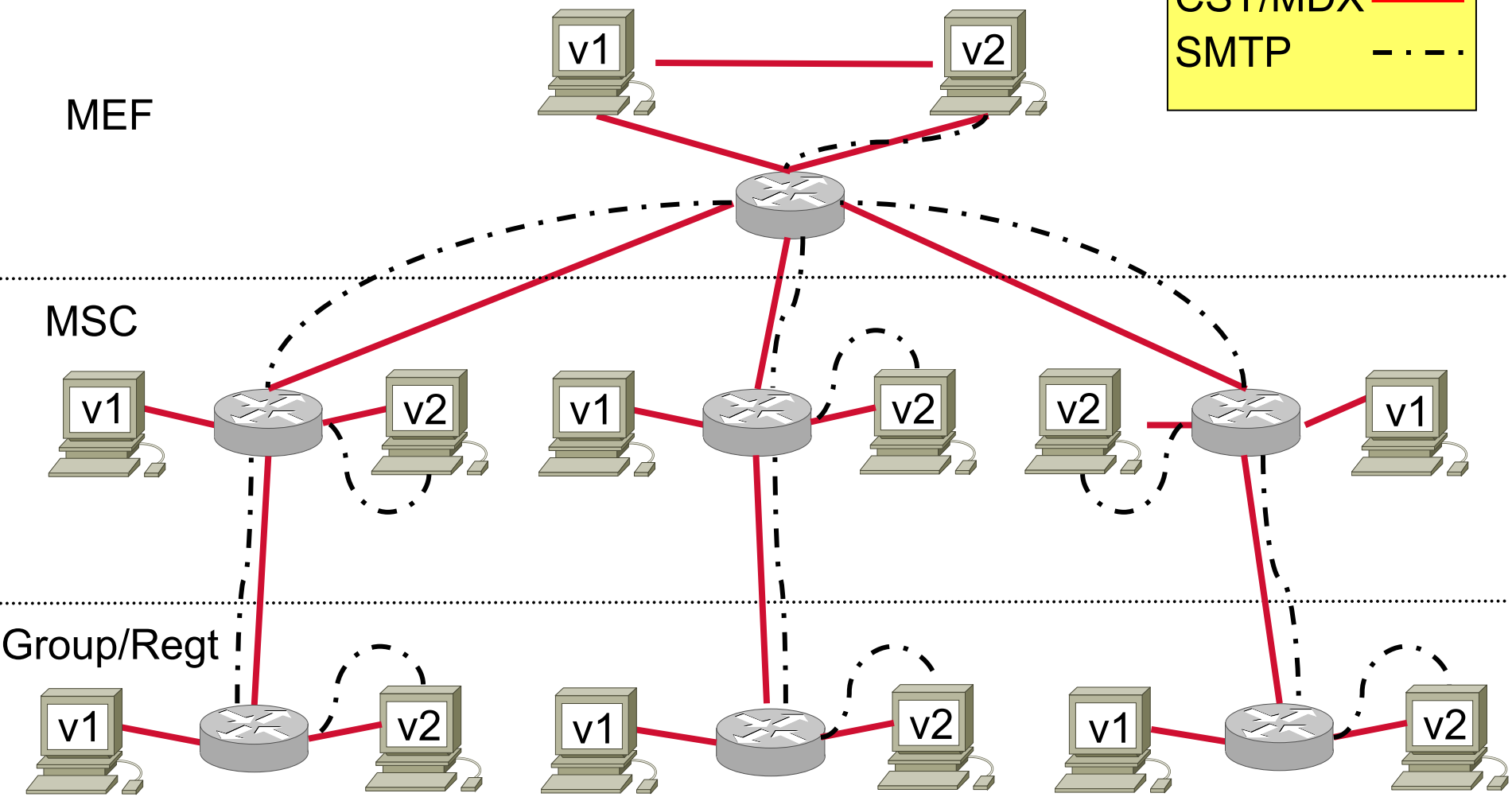
- Interfaces with
  - GCCS
  - AFATDS
  - TBMCS

NETWORK TRAFFIC

MSTP

CST/MDX

SMTP



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C2PC

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COMMAND & CONTROL PC

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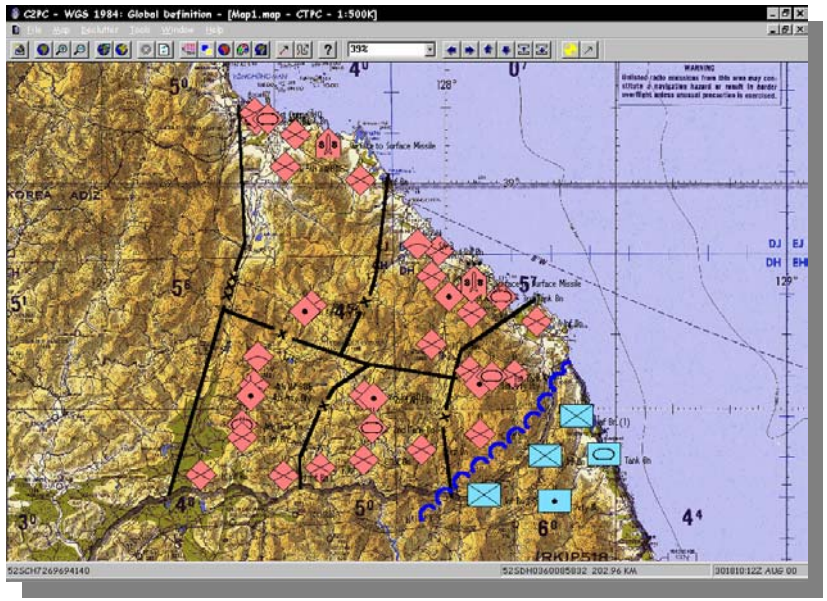
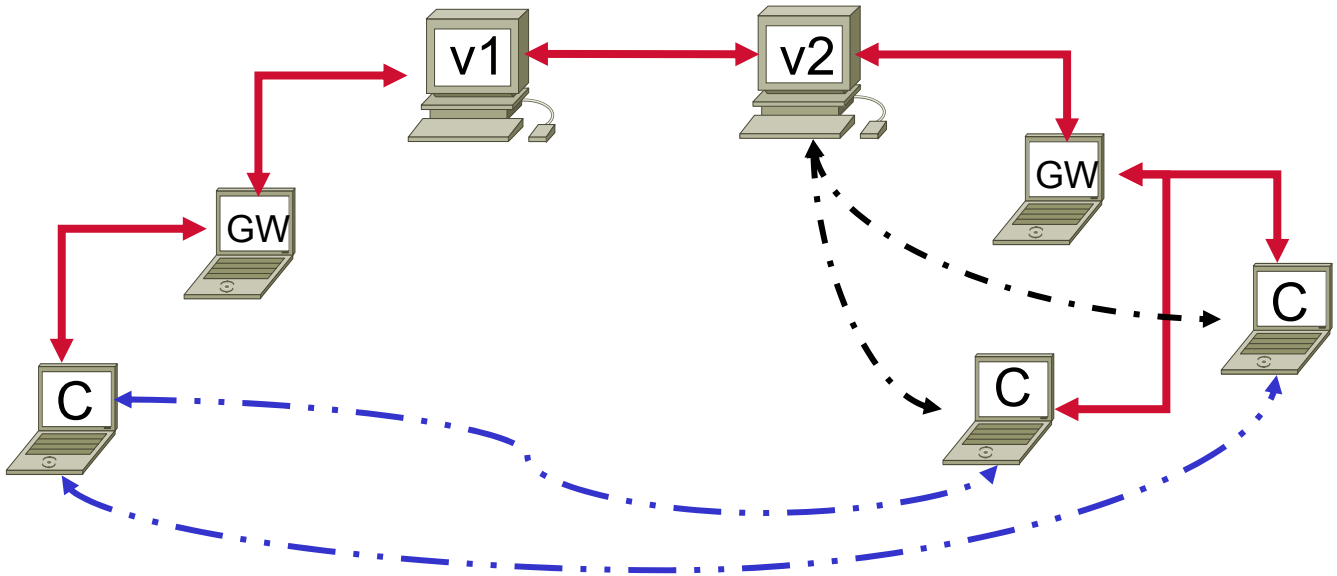
- Client software for IOS
- Provides the Commander the ability to display the CTP
- Ability to display Operational Graphics
  - Overlays
  - Routes
- Allow access, query, and display of the MIDB
  - Intel Client
- System Requirements
  - Windows NT/2000
  - 128 MB RAM
  - 400 MHz Processor
  - 2 GB free HD space



NETWORK TRAFFIC

MSTP

UDP
TCP
TCP/IP



Interfaces with
- IOS v1
- IOS v2

30 second broadcasts (UDP)
- IOS to GW
- GW to Client

AFATDS

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Advanced Field Artillery Tactical Data System

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ATTRIBUTES

MSTP

- ***Fire Support*** **component of the MAGTF C4I software baseline**
- **A multi-service automated Command & Control System designed for Fire Support Operations that Integrates Fire Support Coordination with Tactical Fire Direction**
- **AFATDS Provides**
  - **Integrated responsive and reliable fire support**
  - **A means to input detailed attack guidance and criteria**
  - **Display & dissemination of current friendly and enemy situations**
  - **A database which supports continuity of operations**
  - **Interface with local and wide area networks**
- Specs:
  - Sun Ultra Sparc-II
  - Two 36 GB Ultra-SCSI HD
  - 440 MHZ CPU Ultra-Sparc-II
  - 1 GB RAM
  - Solaris 7

FUNCTIONALITY

MSTP

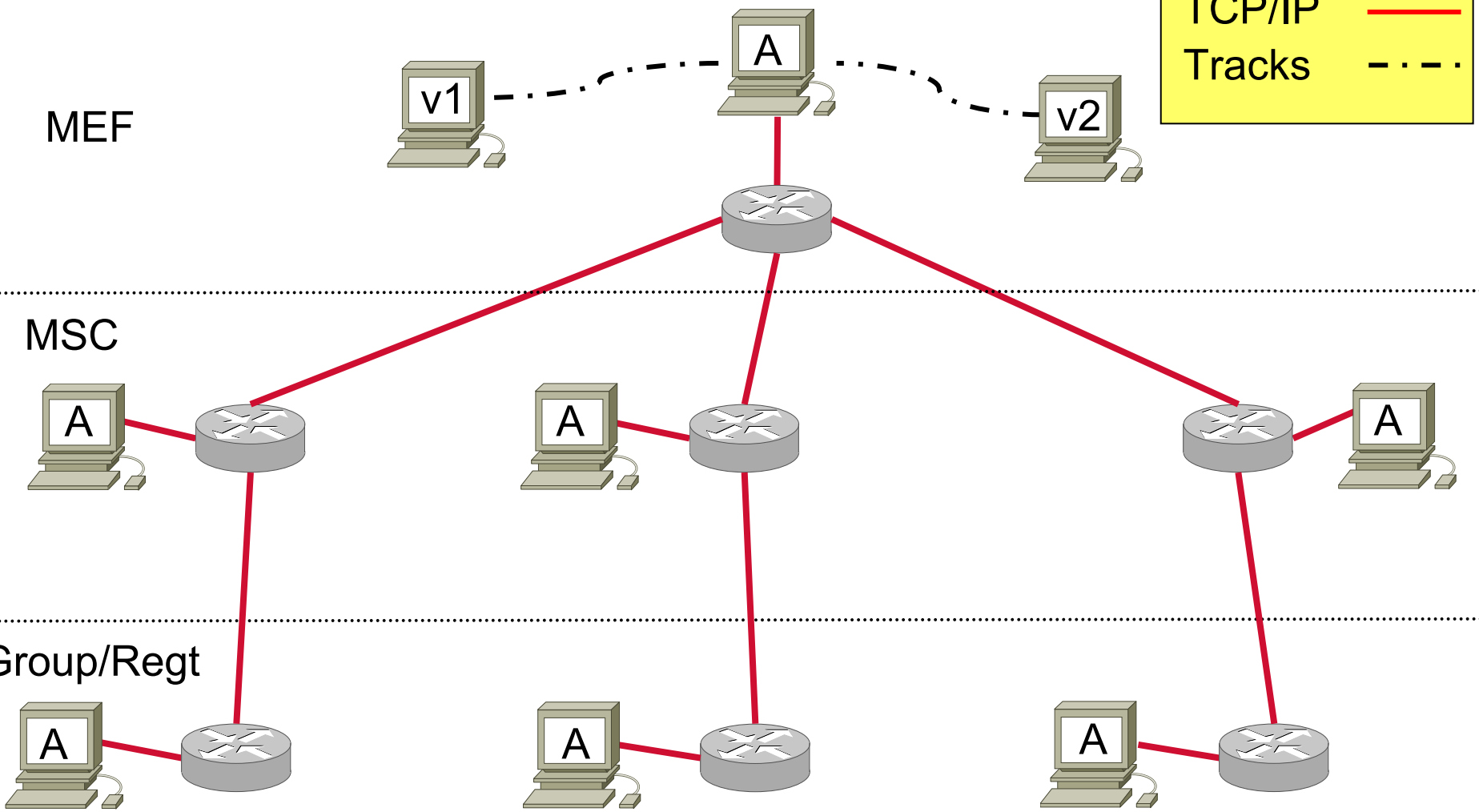
- Fire Support Planning
- Fire Support Execution
- Fire Support Coordination
- Movement Control
- Unit Management & Logistics
- Situational Awareness

- Can interface with:
  - IOS v1
  - IOS v2
  - TBMCS
  - GCCS

NETWORK TRAFFIC

MSTP

TCP/IP
Tracks



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ADOCS

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Automated
Deep Operations
Coordination System

ADOCS

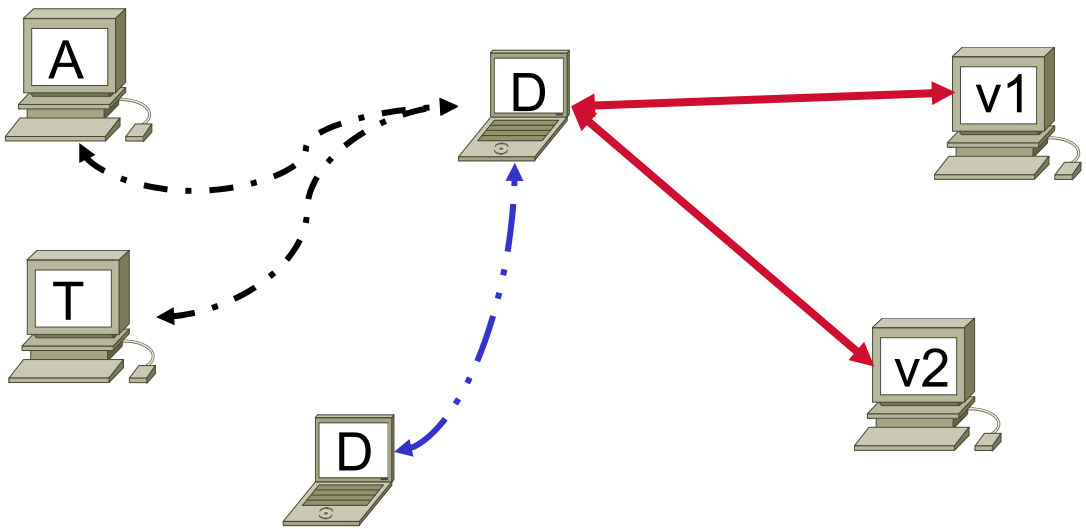
MSTP

- Provides an integrated set of tools
  - Data management
  - Analysis
  - Mission planning
    - Coordination
    - Execution
  - Targeting
  - Fire Support
  - Intelligence
- System Requirements
  - Windows NT/2000
  - 128 MB RAM
  - 4 GB Free HD space
  - 500 MHz Processor

NETWORK TRAFFIC

MSTP

UDP	———
SMTP	– · – ·
TCP/IP	— · · ·



Interfaces with
- IOS v1
- IOS v2
- AFATDS
- TBMCS

TBMCS

MSTP

THEATER
BATTLE
MANAGEMENT
CORE
SYSTEMS

TBMCS

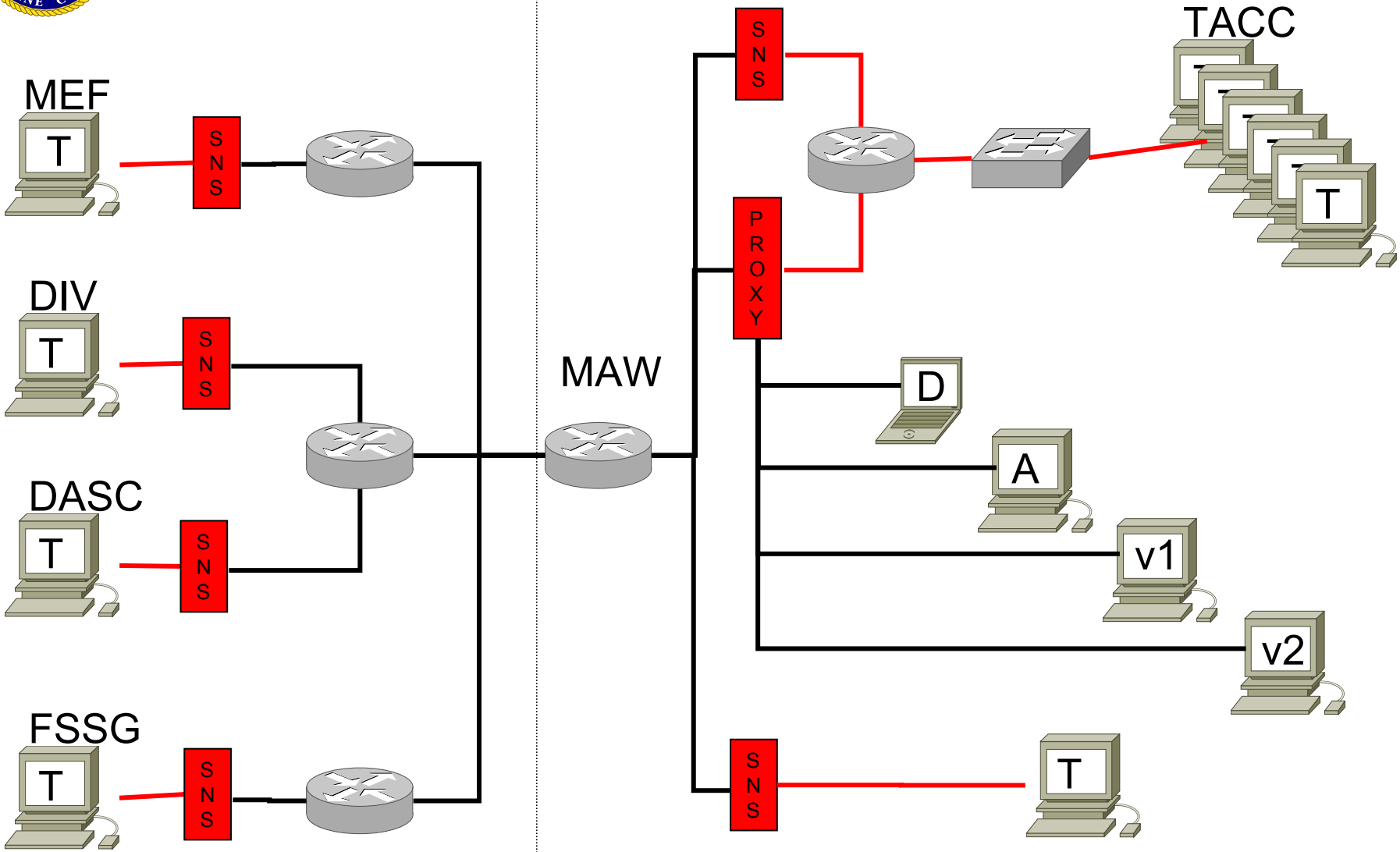
MSTP

- Joint-mandated aviation planning and execution system that provides computer-supported management of theater airborne assets in peacetime, exercise, and wartime environments at the force and unit levels.

- Provides
  - ATO and ACO production
  - Air Battle planning and execution
  - Manage and de-conflict Airspace
  - Targeting & Weaponeering
    - Target development
    - Battle Damage Assessment
- Specs x6
  - Ultra-Sparc II
  - Dual 450 MHz
  - Smartstor 7 raid
    - 18 GB HDs
  - 1 GB RAM

TBMCS NETWORK TRAFFIC

MSTP



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NETWORK CONCERNS

MSTP

- IOS v1 & v2
  - Separate VLAN
- C2PC
  - Gateway for each VLAN
- AFATDS
  - Permanent IP before building
  - Same VLAN as IOS (if possible)
- TBMCS
  - VPN
    - Safe-net switch
    - Proxy server